Name:

at1110paper_practice_test (v11)

1. Expand the following expression into standard form.

$$(6x - 7)(8x - 9)$$

$48x^2 - 54x - 56x + 63$

$48x^2 - 110x + 63$

2. Solve the equation.

$$(2x + 5)(9x - 8) = 0$$

$x = \frac{-5}{2}$ $x = \frac{8}{9}$

3. Expand the following expression into standard form.

$$(6x + 5)(6x - 5)$$

$36x^2 - 30x + 30x - 25$

$36x^2 - 25$

4. Expand the following expression into standard form.

$$(9x - 7)^2$$

$81x^2 - 63x - 63x + 49$

$81x^2 - 126x + 49$

5. Factor the expression.

$$x^2 + 10x + 24$$

$$(x + 4)(x + 6)$$

6. Factor the expression.

$$16x^2 - 9$$

$$(4x - 3)(4x + 3)$$

7. Solve the equation with factoring by grouping.

$$12x^2 + 15x - 8x - 10 \;=\; 0$$

$$(3x - 2)(4x + 5) = 0$$

$$x = \frac{2}{3} \qquad x = \frac{-5}{4}$$

8. Solve the equation.

$$10x^2 - 23x + 16 \;=\; 3x^2 + 4x - 2$$

$$7x^2 - 27x + 18 = 0$$

$$(7x - 6)(x - 3) = 0$$

$$x = \frac{6}{7} \qquad x = 3$$